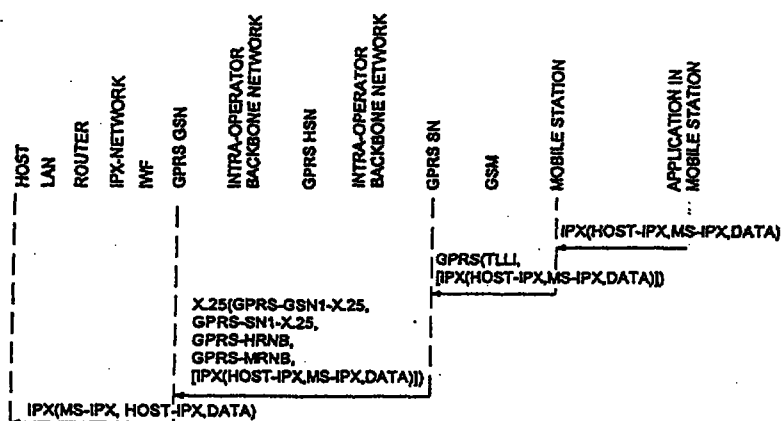




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(54) Title: PACKET RADIO SYSTEM AND METHODS FOR A PROTOCOL-INDEPENDENT ROUTING OF A DATA PACKET IN PACKET RADIO NETWORKS



(57) Abstract

The present invention relates to a protocol-independent routing of data packets between a mobile station of a packet radio network and a party (Host) connected to an external network. In the invention, a data packet of an extraneous protocol (IPX) is transferred through a packet radio network using a second protocol (X.25) as encapsulated in a data packet according to the second protocol. The transferring packet radio network does not thus need to understand the protocol of the transferred extraneous data packet or to be able to interpret the contents of the data packet. A data packet network is connected to other packet radio networks, data networks or the backbone network between packet data networks via a gateway node (GPRS GSN), which uses the network-internal protocol (X.25) towards the dedicated packet network and the protocol of each network towards other networks. When a data packet is transferred via a gateway node from a network into another network, the data packet is encapsulated in a packet according to the protocol of the new network. When the encapsulated data packet arrives in a node which supports the protocol of the encapsulated data packet, the encapsulation is stripped away and the data packet is routed forward according to the protocol of the data packet.